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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,573	06/24/2005	Naoki Kobayashi	016778-0498	6434
22428 7590 02/13/2007 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER HUANG, WEN WU	
			ART UNIT	PAPER NUMBER
			2618	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/13/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/540,573

Applicant(s)

KOBAYASHI ET AL.

Examiner

Wen W. Huang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/25/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/5/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 11, 12 and 15-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 11, 15 and 16 recite "a slot", "a first slot", or "a second slot". The Examiner submits that said slot was not properly described in the specification as filed.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harano (US PUB NO. 2002/0142794 A1) in view of Johnson (US. 6,208,300 B1).

Regarding **claim 1**, Harano teaches a portable telephone (see Harano, fig. 8) comprising

an upper casing (see Harano, fig. 8, component 21) provided with a speaker (see Harano, fig. 8, component 25) and a display screen (see Harano, fig. 8, component 26) and a lower casing (see Harano, fig. 8, component 22) on which a keyboard is disposed (see Harano, fig. 8, component 23), wherein an antenna is mounted on an upper end of the upper casing (see Harano, fig. 8, component 23).

Harano is silent to teaching that wherein a dielectric member with a predetermined dielectric constant and little loss is mounted on a back side of the antenna such that the dielectric member is positioned farther away from a head of a user than the antenna is positioned with respect to the head of the user, when the user is operating the portable telephone. However, the claimed limitation is well known as evidenced by Johnson.

In the same field of endeavor, Johnson teaches a portable telephone (see Johnson, fig. 1, component 10) wherein a dielectric member (see Johnson, fig. 1, component 12) with a predetermined dielectric constant and little loss (see Johnson, col. 5, lines 13-20; a dielectric member is a substance in which an electric field can be maintained with a minimum loss of power by definition) is mounted on a back side of the antenna such that the dielectric member is positioned farther away from a head of a user than the antenna is positioned with respect to the head of the user, when the user

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is operating the portable telephone (see Johnson, fig. 4, component 12; col. 4, lines 29-33).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Harano with the teaching of Johnson in order to direct harmful radio electromagnetic wave energy away from the user's head (see Johnson, col. 2, lines 29-30).

Regarding **claim 8**, the combination of Harano and Johnson also teaches the portable telephone according to claim 1, wherein the antenna is an inverted-L-shaped antenna (see Harano, fig. 5, component 11).

2. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harano in view of Wong (US. 6,615,026 B1).

Regarding **claim 13**, Harano teaches a portable telephone (see Harano, fig. 8) comprising

an upper casing (see Harano, fig. 8, component 21) provided with a speaker (see Harano, fig. 8, component 25) and a display screen (see Harano, fig. 8, component 26) and a lower casing (see Harano, fig. 8, component 22) on which a keyboard is disposed (see Harano, fig. 8, component 23), wherein an antenna is mounted on a lower end of the lower casing (see Harano, fig. 8, component 24).

Harano is silent to teaching that wherein a dielectric member with a predetermined dielectric constant and little loss is mounted on a front side of the antenna such that the dielectric member is positioned farther from where a palm of a user is located than the antenna is positioned with respect to the palm of the user, when the user is holding the portable telephone within the palm in order to operate the portable telephone. However, the claimed limitation is well known as evidenced by Wong.

In the same field of endeavor, Wong teaches a portable telephone wherein a dielectric member (see Wong, fig. 1, component 18) with a predetermined dielectric constant and little loss (see Wong, col. 3, lines 10-15) is mounted on a front side of the antenna (see Wong, fig. 1, component 12) such that the dielectric member is positioned farther from where a palm of a user is located than the antenna is positioned with respect to the palm of the user, when the user is holding the portable telephone within the palm in order to operate the portable telephone (see Wong, fig. 1 and 4; component 12 is closer to the back surface of the portable telephone where the user's palm is placed than component 18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Harano with the teaching of Wong in order to direct harmful radio electromagnetic wave away from the user's head (see Wong, col. 2, lines 13-14).

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Regarding **claim 14**, the combination of Harano and Wong also teaches the portable telephone according to claim 13, wherein the antenna is a built-in antenna built in the lower casing (see Harano, fig. 8, component 24).

3. Claims 3-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harano and Johnson as applied to claim 1 above, and further in view of Wong.

Regarding **claim 3**, the combination of Harano and Johnson teaches the portable telephone according to claim 1.

The combination of Harano and Johnson is silent to teaching that wherein the dielectric member is a dielectric member in shape of hemicylinder. However, the claimed limitation is well known in the art as evidenced by Wong.

In the same field of endeavor, Wong teaches a portable telephone wherein the dielectric member is a dielectric member in shape of hemicylinder (see Wong, fig. 2, component 18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Harano and Johnson with the teaching of Wong in order to direct harmful radio electromagnetic wave away from the user's head (see Wong, col. 2, lines 13-14).

Regarding **claim 4**, the combination of Harano and Johnson teaches the portable telephone according to claim 1.

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The combination of Harano and Johnson is silent to teaching that wherein the dielectric member is a dielectric member in shape of rectangular. However, the claimed limitation is well known in the art as evidenced by Wong.

In the same field of endeavor, Wong teaches a portable telephone wherein the dielectric member is a dielectric member in shape of rectangular (see Wong, fig. 4, component 18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Harano and Johnson with the teaching of Wong in order to direct harmful radio electromagnetic wave away from the user's head (see Wong, col. 2, lines 13-14).

Regarding **claim 5**, the combination of Harano and Johnson teaches the portable telephone according to claim 1.

The combination of Harano and Johnson is silent to teaching that wherein the dielectric member has a curved surface on a side opposite to the antenna. However, the claimed limitation is well known in the art as evidenced by Wong.

In the same field of endeavor, Wong teaches a portable telephone wherein the dielectric member has a curved surface on a side opposite to the antenna (see Wong, fig. 2, component 18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Harano and Johnson with



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the teaching of Wong in order to direct harmful radio electromagnetic wave away from the user's head (see Wong, col. 2, lines 13-14).

Regarding **claim 7**, the combination of Harano and Johnson teaches the portable telephone according to claim 1.

The combination of Harano and Johnson is silent to teaching that wherein the antenna is a dipole antenna. However, the claimed limitation is well known in the art as evidenced by Wong.

In the same field of endeavor, Wong teaches a portable telephone wherein the antenna is a dipole antenna (see Wong, col. 2, lines 49-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Harano and Johnson with the teaching of Wong in order to direct harmful radio electromagnetic wave away from the user's head (see Wong, col. 2, lines 13-14).

4. Claims 6, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harano and Johnson as applied to claim 1 above, and further in view of Shoji et al. (US. 7,031,762 B2; hereinafter "Shoji")

Regarding **claim 6**, the combination of Harano and Johnson also teaches the portable telephone according to claim 1.

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The combination of Harano and Johnson is silent to teaching that wherein the antenna is a built-in antenna built in the upper casing. However, the claimed limitation is well known in the art as evidenced by Shoji.

In the same field of endeavor, Shoji teaches a portable telephone wherein the antenna is a built-in antenna built in the upper casing (see Shoji, fig. 9, component 50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Harano and Johnson with the teaching of Shoji in order to alleviate degradation of antenna gain (see Shoji, col. 1, lines 44-46).

Regarding **claim 9**, the combination of Harano and Johnson teaches the portable telephone according to claim 1.

The combination of Harano and Johnson is silent to teaching that wherein the antenna is a monopole antenna. However, the claimed limitation is well known in the art as evidenced by Shoji.

In the same field of endeavor, Shoji teaches a portable telephone wherein the antenna is a monopole antenna (see Shoji, col. 2, line12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Harano and Johnson with the teaching of Shoji in order to alleviate degradation of antenna gain (see Shoji, col. 1, lines 44-46).

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Regarding **claim 10**, the combination of Harano and Johnson teaches the portable telephone according to claim 1.

The combination of Harano and Johnson is silent to teaching that wherein the antenna is a meander antenna. However, the claimed limitation is well known in the art as evidenced by Shoji.

In the same field of endeavor, Shoji teaches a portable telephone wherein the antenna is a meander antenna (see Shoji, col. 2, line 13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Harano and Johnson with the teaching of Shoji in order to alleviate degradation of antenna gain (see Shoji, col. 1, lines 44-46).

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harano and Johnson as applied to claim 1 above, and further in view of Filipovic (US. 6,590,544 B1).

Regarding **claim 2**, the combination of Harano and Johnson teaches the portable telephone according to claim 1.

The combination of Harano and Johnson is silent to teaching that wherein the dielectric member is a dielectric member in shape of hemisphere. However, the claimed limitation is well known in the art as evidenced by Filipovic.

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In the same field of endeavor, Filipovic teaches an antenna wherein the dielectric member is a dielectric member in shape of hemisphere (see Filipovic, col. 2, lines 39-41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Harano and Johnson with the teaching of Filipovic in order to improve the directivity of the antenna (see Filipovic, col. 2, lines 22-23).

### ***Response to Arguments***

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen W. Huang whose telephone number is (571) 272-7852. The examiner can normally be reached on 10am - 6pm.

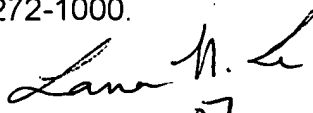
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay A. Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

wwh



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LANA LE  
PRIMARY EXAMINER